

Applicant : Alexandre RYABCO et al.

Attorney's Docket No.: 07066-065001

Serial No. : 09/916,219

Filed : July 27, 2001

Page : 2

REMARKS

Claims 1 and 3-18 stand rejected under 35 USC 102(e) as anticipated by Suga (U.S. Patent No. 6,150,665). Claims 2-3 and 19-20 stand rejected under 35 USC 103(a) as obvious in view of Suga.

Applicants' invention, in one configuration, is directed to an imaging device comprising an optical plate made of an optically transparent material forming a surface for receiving a finger and having an index of refraction less than 1.49. Applicants' invention, in another configuration, is directed to an imaging device in which the optical plate has an index of refraction less than the index refraction of the finger. The optical plate may include TPX, Butyrate or silicone.

The particular indices of refraction of the optical plate of Applicants' inventions are selected to make the imaging device thinner so that it may fit, for example, in portable or compact electronic apparatuses. (*See, e.g., Applicants' specification at pg. 4, lines 9-12.*)

Applicants' invention, in another configuration, is directed to a method of forming an optical plate. The method comprises molding a silicone material into a base, forming a reflective device and attaching the reflective device to the base to form a reflective interface between the base and the reflective device. In another configuration, Applicants' invention is directed to a method of forming an optical plate comprising: forming a transparent hollow device having sides, applying a coating to an inner surface of one of the sides to form a reflective surface on that side, dispensing silicone material into the hollow device, and hardening the silicone material to form the optical plate.

Suga neither discloses, teaches nor suggests Applicants' claimed inventions.

Suga discloses a fingerprint detecting device including a transparent body or optical plate 101. The optical plate 101 is made of an optical glass material or a transparent plastic material. (Col. 4, lines 57-60.) The optical plate 101 can be made of borosilicate crown glass having an index of refraction of 1.52. (Col. 5, lines 19-24.)

The optical plate 101, as disclosed in Suga, has an index of refraction greater than that of 1.49 as well as greater than that of a finger. Therefore, Suga cannot possibly anticipate or render obvious Applicants' claimed inventions.

The fingerprint detecting device of Suga includes an intermediate fluid layer 111, in which a gas or liquid is sealed, formed between a surface 101S of the optical plate 101 and a

Applicant : Alexandre RYABO et al.
Serial No. : 09/916,219
Filed : July 27, 2001
Page : 3

Attorney's Docket N. : 07066-065001

surface film layer 112. The surface film layer 112 has a lubricating surface 112A directly contacting a finger 103, and a viscoelastic surface 112B opposing the surface 101S of the optical plate 101. (See Figs. 1 and 2; Col. 3, line 62 to Col. 4, line 4.)

An oil sealed in the intermediate layer 111 may have an index of refraction of 1.38. The surface film layer 112 may be made up of a polyethylene terephthalate film having an index of refraction of 1.65. Alternatively, the surface film layer 112 may be made of a rubber material such as natural rubber, silicone rubber or urethane rubber. (See Col. 5, lines 53-67.)

The layers 111 and 112 of Suga are used to enhance the performance, that is, the contrast ratio, of Suga's fingerprint detecting device. The layers 111 and 112 are formed so that the bottom of the intermediate fluid layer 111 establishes a fingerprint image on the surface 101S of the optical body 101 when a finger is placed against the surface film layer 112. (See Figs. 1 and 2; Col. 3, lines 5-27.) Suga teaches that the use of the intermediate fluid layer 111 and the surface film layer 112 eliminates certain performance problems caused by dry fingers forming a gap 35, or wet fingers forming sweat or grease 36 on the surface of the optical body. (See Figs. 5A and 5B; Col. 2, lines 21-40.)

The optical body 101 of Suga does not have an index of refraction less than 1.49 or less than that of a finger. Moreover, the use of the layers 111 and 112 are not intended to and, in fact, do not make the optical body 101 thinner. As such, Suga cannot anticipate or make obvious Applicants' claimed inventions.

Additionally, it is respectfully submitted that there is absolutely no teaching or suggestion in Suga to use TPX or Butyrate to form an optical plate. TPX and Butyrate have respective indices of refraction that are less than 1.49. Suga fails to disclose forming its optical plate 101 of such materials.

Claims 19-20 were also rejected as obvious over Suga. Again, Suga does not disclose, teach or suggest the particular methods set forth in these claims. As such, these methods are clearly patentably distinct from Suga.

In view of the foregoing, it is submitted that all the claims are in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicants' undersigned attorney at (925) 906-1302.

JUN. 3. 2003 2:36PM

NO. 425 P. 7

Applicant : Alexandre RYABOV et al

Attorney's Docket No.: 07066-065001

Serial No. : 09/916,219

Filed : July 27, 2001

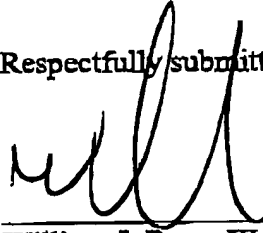
Page : 4

Please apply any charges or credits to Deposit Account No. 06-1050.

Date:

3/26/03

Respectfully submitted,



William J. Egan, III

Reg. No. 28,411

Fish & Richardson P.C.
500 Arguello Street, Suite 500
Redwood City, California 94063
Telephone: (650) 839-5070
Facsimile: (650) 839-5071

50130645